



CONSERVATION AND ENVIRONMENT PROTECTION AUTHORITY

Environmental Regulatory Outlook on Major Resource Development Projects in PNG

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Environmental Legal Framework

- ▶ 4th Goal of the National Constitution
- ▶ Environment Act 2000
- ▶ Environment (Prescribed Activities) Regulation 2002
- ▶ Environment (Permits and Transitional) Regulation 2002
- ▶ Environment (Water Quality Criteria) Regulation 2002
- ▶ Environment (Council Procedures) Regulation 2002

Major Resource Development Projects in PNG 2013-2023

- Wafi Golpu Project
- Papuan LNG
- Twinza Gas
- Frieda River Project (Sepik Development Project)
- Simberi Gold Mine Sulphide Expansion
- Lihir MOPU Project
- Hidden Valley Gold Mine Extension Project
- Kainantu Gold Mine Expansion
- Adevu Hydro Dam Project
- Ramu 2 Hydro Power Project
- Foundation PNG LNG Project

EIS Regulatory Approval Road Map

- 30 Days Initial Assessment
- Acceptance Letter

Independent Peer Review (IPR) of EIS

- CEPA will draw up TOR for the engagement of Independent External Expert Consultants
- Put out Tender Bids for Consulting Firms to Bid
- Screen Applicants and Select suitable Consultant
- Sign Contract Deed for engagement
- Consultant to do the review of the EIS (3-4 months)
- Consultant submits Assessment Report to CEPA
- CEPA arrange conference with the proponent's consultants to review and discuss the recommendations of the independent review report.

Environment Impact Statement (EIS) received by CEPA

EIS Assessment (6 - 9 months)

CEPA may requests additional information or studies to be undertaken by Proponent

- Referrals (State Agencies, Provincial Administration, LLGs, Landowners, and other Stakeholders)
- Public Advertisements (Newspapers)
- Public Consultation/Roadshow

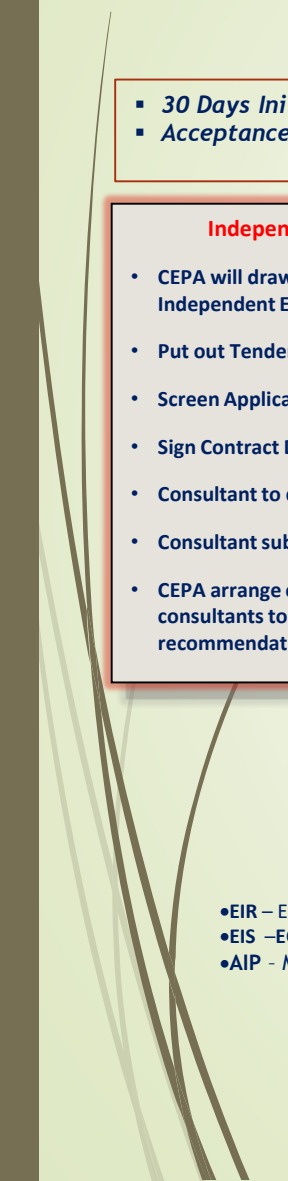
CEPA Compiles Technical Assessment Report and Reviews for Environment Council

EC Meeting Recommends to the Minister for Approval

Minister's APPROVAL IN PRINCIPLE (AIP)

Director grants Environment Permit

- EIR – Environment Impact Statement
- EIS –EC – Environment Council
- AIP - Minister's Approval In Principle



Mine Tailings Management System

1. Deep Sea Tailings Placement (DSTP)

Project	DSTP Depth	Tailings Volume	Remarks
Misima Gold Mine	112m	3,022,678 tonnes/yr	Closed Mine
Ramu Nickel Project	150m	58,938,156 m ³ /yr	Operating
Simberi Gold Mine	126.1m	5,600,000 m ³ /yr	Operating
Lihir Gold Mine	128m	182,497,080 m ³ /yr	Operating
Woodlark	230m	3,100,000m ³ /yr	Under Construction
Wafi Golpu	200m	17millio tons/yr	Pending Grant of SML



2. Tailings Storage Facility (TSF)

Project	Tailings Volume	TSF Capacity	Remarks
Hidden Valley	3.7 Million tons/yr.		Operating
Kainantu			Undergoing Expansion
Frieda River			Waiting Regulatory Approvals

3. Riverine Tailings Disposal

3. Riverine Tailings Disposal Projects

Project	Tailings Volume	River System	Remarks
Porgera	<ul style="list-style-type: none">• 6 Mt/yr (tailings)• 10-15Mt/yr (waste rock)	Porgera - Lagaip-Strickland-Fly River	Re-opening soon
Oktedi	15 – 20 Mt/yr. (~13-15M m ³); 70 – 80 Mt waste Rock/yr. Q (Engineered Dump)	Ok Mani- Oktedi – Fly River	Operating
Tolukuma	160,000 -230,000 tonnes/yr	Auga – Angabanga River	Care & Maintenance



Challenges

Mining Sector:

- Tailings Management & Monitoring
- need for sustainable funding to undertake quality monitoring work
- need to improve current systems in place for undertaking environmental monitoring programs

Oil and Gas Resource Projects

- ▶ PNG Foundation LNG Project
- ▶ Kutubu Oil (Santos/OSL PNG) Project
- ▶ Pasca A (Twinza Oil) Project
- ▶ Papua LNG Project
 - ▶ Upstream Total Energies PNG
 - ▶ Downstream; ExxonMobilPNG

Papua LNG Project - Upstream

- Key environmental aspects: focus of CEPA assessment of permit application & preparation of Environment Permit conditions:
- Protection of high biodiversity values within project area by:
 - Minimise project footprint and disturbance through project design & location;
 - Avoid or minimize disturbance to particularly sensitive habitats, fauna & flora;
 - Rigorous management measures to prevent introduction of invasive species
- Protection of ecosystem services: surface waters, soils & vegetation:
 - Design, implement and monitor project-wide waste management plan;
 - Design, implement, monitor prompt restoration of temporary disturbed areas;
 - Manage project river transport to avoid / minimize disruption to traditional users of the river and disturbance / damage to riparian habitats, gardens and dwellings.
- Protection of key social services and traditional social livelihoods;
- Protection of cultural heritage values, artifacts and sites

Papua LNG Project - Downstream

- Previously disturbed (“brownfield”) area, most developments will occur within the existing LNG Plant site at Caution Bay.
- Focus of CEPA’s assessment and preparation of Environment Permit conditions:
 - Update existing environmental information to update a contemporary baseline;
 - Update risk assessments and identification of new / extended potential impacts associated with expansion of existing facilities at LNG Plant site
 - Management of all waste streams, discharges and emissions to minimize / avoid potential impacts & to ensure integration of these with the existing LNG Plant site Waste Management Plan;
 - Design and location of Downstream Project Offshore Infrastructure, subsea pipelines, CALM Buoy to minimize disruption to coastal boat traffic and access to fishing areas.



ExxonMobil PNG LNG Operations

- CEPA key focal areas:
 - Routine compliance monitoring, assessment & evaluation against Environment Permit criteria & Environmental Management Plans;
 - Investigation of non-compliance, assessment & approval / referral of remediation & restoration responses, lessons learnt & incorporated into operating procedures;
 - Investigation of environmental incidents and public grievances, assessment , consultation, remediation, restoration & lessons learnt;
 - Assessment of Applications to Amend Environment Permit resulting from changes in project design, operating procedures, feedback from monitoring programs & improvements in environmental performance & upgrades to specific environmental monitoring methods & criteria;
 - Collaboration & advice to ExxonMobil Biodiversity initiatives;
 - Collaboration & advice to 2018 Earthquake Recovery Program

Santos Oil Search PNG Operations

- ▶ Principle CEPA focus during 2023 – assessment of Santos Application for Amendment of the Oil Search Operations Environment Permit to permit installation & operation of a Floating Storage & Offloading (FSO) facility (vessel) approximately 40kms off the coast of Gulf Province;
- ▶ The FSO facility will replace the Kumul Marine Terminal and the crude oil export storage tanks facility at the Gobe oil field when these reach their End-Of-Field-Life in 2026;
- ▶ CEPA continues to assess & regulate Santos operations:
 - ▶ Routine compliance monitoring & investigation of non-compliance;
 - ▶ Investigation of environmental incidents & public grievances;
 - ▶ Assessment of Applications to Amend Operations Environment Permit.

